

# SENSORY ENVIRONMENT GROUP

The Sensory Environment Group concentrates on the development of research methods to acquire objective information—useful from the design standpoint—about people/building interactions. The Group asks: what should buildings provide to enable users to perform necessary and desired activities. On-going research deals with a broad range of topics. Illumination, visual communication (including color), resource conservation, and post-occupancy building evaluations are some of the on-going research areas focused on as part of the Group's efforts to help match building occupants' needs with building design considerations.

In the area of illumination research, for example, the goal is to determine the quantity of lighting needed to perform visual tasks.

Similarly, the Group conducts research on how to communicate visual information to prevent accidents and indicate paths to safety under emergency conditions, such as fire. In this particular area, the Group aims to determine the optimal characteristics (e.g. color) of signs and other signals in terms of noticeability and understandability. Energy and water conservation research now underway will improve understanding about how building occupants are affected by—and how they can influence—the usage patterns of these resources.

Although the problems under study cover a wide range of topics, they share several basic characteristics. They are all concerned with:

- Broadly based problems
- Improvement of existing design criteria to make them more responsive to user requirements
- Improvement and standardization of research methods—the means of collecting information
- "Bridging the gap" between laboratory and field research findings
- Influencing design practice by linking the research and design processes.

---

Sensory Environment Group  
Environmental Design Research Division  
Center for Building Technology

Mail: Building 226, Room B320  
National Bureau of Standards  
Washington, D.C. 20234  
Phone: 301-921-2177



**U.S. DEPARTMENT OF COMMERCE / National Bureau of Standards**  
National Engineering Laboratory / Center for Building Technology

